

# Final Draft Boat Dock Standards Ordinance 6.03.09V4

Ordinance No. \_\_\_\_

**AN ORDINANCE AMENDING CHAPTER 18, “LAKE WORTH”, OF THE CODE OF THE CITY OF FORT WORTH (1986), AS AMENDED, BY ADDING ARTICLE II, PREVIOUSLY RESERVED; TO BE ENTITLED “DOCKS, PIERS AND BOAT HOUSES ON LAKE WORTH”; SECTION 18-16 “DEFINITIONS”; SECTION 18-17 “CONSTRUCTION OR IMPROVEMENT OF A DOCK, PIER, BOATHOUSE OR WALKWAY”; SECTION 18-18 “GENERAL PROVISIONS”; SECTION 18-19 “APPLICATION TO THE LWMO”; SECTION 18-20 “SIZE AND SETBACK LIMITATIONS”; SECTION 18-21 “STRUCTURES”; SECTION 18-22 “DESIGN LOADS”; SECTION 18-23 “DESIGN MINIMUMS”; SECTION 18-24 “FLOATATION MATERIAL”; SECTION 18-25 “INSPECTIONS AND REMOVAL FOR VIOLATIONS”; SECTION 18-26 “WAIVERS”; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY CLAUSE; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, Lake Worth is owned by the City of Fort Worth and is managed by the Water Department; and

**WHEREAS**, Chapter 36 of the Building Code as adopted by the City Council requires that structures constructed on Lake Worth must have the approval of the Water Department, as well as comply with other City Codes; and

**WHEREAS**, the Water Department determined a need to balance the right of the property owners at Lake Worth and the protection and integrity of the City’s right as property of Lake Worth by determining appropriate standards for boathouses and other structures; and

**WHEREAS**, on or about July 2008a steering committee was created made up of representatives from various neighborhood associations around Lake Worth, real estate professionals, community members and City staff members; and

**WHEREAS**, the steering committee developed its recommendations for standards to be adopted by ordinance on November 20, 2008; and

**WHEREAS**, the Water Department presented these recommendations to the City Council’s committee on Infrastructure and Transportation on December 9, 2008; and

**WHEREAS**, the Water Department, after conferring with the Planning and Development Department and the Building Official, hereby recommends these standards be adopted through this ordinance by the City Council.

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FORT WORTH, TEXAS:**

**SECTION 1.**

Part II of the Code of the City of Fort Worth, Texas (1986), as amended, Chapter 18, “Lake Worth”, Article II, “ is hereby added to the City Code to read and be as follows:

**ARTICLE II. DOCKS, PIERS AND BOAT HOUSES ON LAKE WORTH.**

**SECTION 18-16. Definitions.**

For the purposes of this Article II, the following words and phases shall have the meanings assigned herein. If any of these terms are further defined elsewhere in the City Code, the definitions shall apply unless there is a conflict, and then the definition in this Article II shall apply.

*Building Code* shall mean the building code(s) as adopted and amended by the Fort Worth City Council.

*Dead Load* shall mean the permanent inert weight of materials of construction incorporated into the Structure, including fixed or permanent attachments, such as bumpers, railings, winch stands, roof structures, etc.

*Decking* shall mean the surface material that forms the floor of the Structure.

*Dock, Pier, or Boathouse* (or any combination) shall mean a structure extending from the shore into the water to permit the landing and mooring of vessels. The term “dock”, “pier” or “boathouse” includes the anchoring system and any walkways or bridges that will attach to the Structure itself.

*Flotation Live Load* shall mean the total load that a dock can carry without capsizing or sinking. The flotation live load shall be equal to the dead load plus the live load.

*Hunt Absorption Test* shall mean a test documenting the rate at which flotation material absorbs liquid, as well as the quantity of liquid absorbed.

*Lakefront Property Line* shall mean the property line that borders the waters of Lake Worth as shown on the final plat of record or survey for the property.

*Lake Worth Management Office (LWMO)* shall mean that group in the Water Department responsible for review and approval for all improvements to structures at or in Lake Worth, and who shall administer the requirements of Article II.

*Live Load* shall mean any moving or variable superimposed load on the Structure.

*Loads* shall mean forces or other actions that result from the weight of building materials, occupants and their possessions, environmental effect, differential movement and restrained dimensional changes. Permanent loads are those loads in which variations over time are rare or of small magnitude, such as dead loads. All other loads shall be variable loads.

*Registered Professional Engineer (RPE)* shall mean a professional engineer currently registered with the State of Texas as a professional engineer with a specialization in civil or structural engineering and experience in dock and pier construction.

*Structural Dead Load* shall mean the weight of the Structure and its ability to support itself.

*Structure* shall mean and be inclusive of entire Dock, Pier or Boathouse, including the walkway, anchoring system, cables, floats, electrical, plumbing and any other related components or materials installed in conjunction with the construction, maintenance, or use of the dock.

*Walkway (or Bridge)* shall mean a passage that provides access from the land or a boat dock, marina, or other floating facility.

*Water Use and Access Easement* shall mean the lands enclosed on one side by the lakefront property line, on a second side by the waters of Lake Worth, and on the third and fourth side by two lines, each beginning at opposite ends of the lakefront property line and each being a projection of the side lot lines of each lot as shown on the plat of record or survey for the property.

#### **SECTION 18-17. Construction or Improvement of a Dock, Pier, Boathouse or Walkway.**

- (a) No person shall erect, construct, enlarge, alter, or remove any Dock, Pier, Boathouse or Walkway in Lake Worth without the approval of the LWMO. Such approval must be shown in writing upon application for a permit pursuant to Chapter 36 of the Building Code.
- (b) A person who wishes to erect, construct, enlarge, alter, or remove any Dock, Pier, Boathouse or Walkway in Lake Worth shall comply with all design and construction standards provided in this Article and shall also comply with the Building Code. If there is a conflict between the Building Code and a provision in this Article, the more

restrictive requirement shall apply.

- (c) A person commits an offense if a person fails to obtain the written approval of the LWMO prior to erecting, constructing, enlarging, altering, or removing any Dock, Pier, Boathouse (or combination) or Walkway and/or fails to comply with any requirement in this Article II and/or the Building Code.

#### **SECTION 18-18. General Provisions.**

- (a) All Docks, Piers, Boathouses or Walkway in Lake Worth shall be considered accessory structures. A primary structure must be present on the lot to which a Dock, Pier, Boathouse and/or Walkway is attached.
- (b) A person who wishes to construct or improve a Dock, Pier, Boathouse or Walkway must have a valid Water Use and Access Easement which has been granted by the City.
- (c) A person commits an offense if a person constructs or improves a Dock, Pier, Boathouse or Walkway without a valid Water Use and Access Easement granted by the City.

#### **SECTION 18-19. Application to the LWMO.**

- (a) Persons seeking to construct a Dock, Pier or Boathouse or Walkway must submit to LWMO an application and two (2) complete sets of the project plans for the Structure, which shall include but not limited to the anchoring system, and any Walkways or Bridges that will attach to the proposed Structure.
- (b) When an existing Structure will be used as part of the newly proposed Structure the project plans must include a complete description of the existing Structure. The existing Structure must also comply or be brought into compliance with the specifications set forth in these regulations.
- (c) The project plans must include a description of the site that shows the location of the primary lot, the extension of property lines out into the water area and a key plan, either included on the site plan or on a separate sheet, to show the location on or to Lake Worth.
- (d) The project plans must be signed and sealed by an RPE and contain a statement that the proposed Structure complies with the specifications set forth in this Article and any and all structural design provisions in the Building Code.
- (e) Each project plan set must also include a copy of the manufacturer's certified plans for any components that will be part of the Structure, such as decking, railing, or awning systems.
- (f) The project plans and manufacturer's certified plans must be based upon the actual conditions at the site of the proposed Structure.

- (g) Upon acceptance of the project plans and manufacturer’s certified plans, and written approval of the proposed Structure by the LWMO, the requestor shall submit such plans and a copy of the written approval from LWMO to the Planning and Development Department as part of its application for a building permit.
- (h) A person may not begin construction of a Structure until a building permit for the Structure has been issued by the City.

**SECTION 18-20. Size and Setback Limitations.**

- (a) The maximum floor to area coverage allowed for Docks, Piers, Boathouses and/or Walkways shall be twenty-five percent (25%) of the area of the Water Use and Access Easement. Every site regardless of the area of the Water Use and Access Easement shall be allowed a minimum coverage area of 1,000 square feet and a maximum coverage area of 2,500 square feet.
- (b) The minimum setback from a projected side yard line shall be based on the width of the property at the Lakefront Property Line as follows:

<u>Lot Width</u>	<u>Setback</u>
Less than 50 feet	5 feet
50-69 feet	10 feet
70-99 feet	15 feet
100 feet or more	20 feet

- (c) Structures may extend to a point 100 feet from the Lakefront Property Line into the waters of Lake Worth regardless of the depth of the water at that point, or to the point at which the elevation of the land lying under Lake Worth is not lesser than 584 feet above mean sea level, but in no instance shall such improvements be allowed to extend further than 150 feet from the Lakefront Property Line into the waters of Lake Worth.
- (d) No Structure shall occupy more than one-third (1/3) of the channel width and in no case shall extend more than 20 feet from the centerline of the channel, as determined by the LWMO.

**SECTION 18-21. Structures.**

- (a) Enclosed Structures are prohibited. To protect a raised boat within a Structure from the elements, solid sides on the Structure will be permitted at a maximum of two (2) feet downward to the point where the ceiling joist meets the top plate. No additional materials (i.e. lattice, fencing, bars, screen fabric, doors, glass, etc.) may be installed below the two (2) foot sidewalls. Safety railings attached to the deck may extend upward a maximum of three (3) feet. A Special Exception maybe granted pursuant to Section 18-26, to allow for enclosure of Structures that do not extend more than 100 feet into the Water Use and Access Easement.
- (b) A contained storage area is allowed only within the first floor (lower deck) of a Boathouse and only for the purpose of storing items such as tackle and life jackets. Products considered hazardous material or any material which has a warning label prohibiting its use or storage near water and/or public water supplies may not be stored in these areas. The maximum storage area allowed shall be as follows:

<u>Structure Area</u>	<u>Storage Area</u>
800 to 1500 square feet	32 square feet
1501 to 2000 square feet	48 square feet
2001 to 2500 square feet	64 square feet

- (c) No toilet facilities of any type shall be allowed on any Structure built past the Lakefront Property Line. A potable water supply can be plumbed to the first floor (lower deck) provided that backflow prevention devices are installed and inspected in accordance with 12.5, Article V, Division 3, *Cross Connection Control* of the City Code and the Plumbing Code as adopted by the City Council.
- (d) Fuel pumping facilities exceeding 55 gallons are not allowed on Structures that extend past the Lakefront Property Line.
- (e) Structures shall be limited to a single story (lower deck) and a sundeck (upper deck) or roof. The floor of the lower deck shall be no less than the 596 foot elevation. The upper deck of a Structure shall have a minimum of one-half (1/2) in 12 pitch. The upper deck may not have a permanent roof or covering. The roof shall be constructed in accordance with the Building Code.
- (f) Any Structure that extends more than 100 feet from the Lakefront Property Line shall be equipped with a white photocell light of no less than 200 lumens that operates continually from dusk to dawn. Such lighting shall be provided with a cover on the top of the light to minimize light dispersion upward. The LWMO may require that lighting be placed on structures less than 100 feet from the shoreline when in LWMO decides it is warranted to enhance boating safety. It is the Dock owner's responsibility to ensure that all required

lighting is properly maintained and operational at all times.

- (g) A person commits an offense if a person constructs or improves a Structure in violation of this Section.

### **SECTION 18-22. Design Loads.**

The provisions of this Section are provided from Chapter 36 of the Building Code. As such, appeals for variances to this Section shall be made through the Building Official and the Construction and Fire Prevention Board of Appeals.

The RPE shall apply the appropriate loads when doing calculations. Such factors shall include, but not be limited to:

- (a) Dead load;
- (b) Live load;
- (c) Roof load; and
- (d) Wind load and wave action; which should be considered as simultaneously applied.
- (e) When intended to have boats attached to the Structure for storage, the effects of such estimated loads, such as wind and wave, on the boat that are transferred to the Structure shall also be considered.
- (f) When intended to have boats lifted out of the water, the effects of such estimated loads, such as wind on the boat and dead load of the boat, that are transferred to the Structure shall also be included.
- (g) Surface areas at and above the water line, when authorized, including but limited to walls, screens and tarps.

### **SECTION 18-23. Design Minimums.**

The provisions of this Section are provided from Chapter 36 of the Building Code. As such, appeals for variances to this Section shall be made through the Building Official and the Construction and Fire Prevention Board of Appeals.

In addition to complying with Chapter 36 of Building Code (unless otherwise stated herein), all Structures shall comply with the following provisions:

- (a) Wood piles shall comply with Chapter 18 of the Building Code.
- (b) All Docks, Piers or Boathouses (or combination) shall be designed to withstand the Loads as specified in Chapter 16 of Building Code, based upon the occupancy classification as assigned by the City's Building Official.
- (c) Structures must withstand a minimum of four (4) foot high wave action at lake levels up to 601 feet above sea level. Floating docks must be designed with anchorage footing and piers to remain in place without floating off at the 601 elevation.

- (d) Cables and chains used in anchoring systems shall be designed with a minimum working load safety factor of 3.0 for cable and 2.0 for chains.
- (e) Walkways and Bridges shall have a maximum slope under dead Load of a 4:1 ratio to any direction at the lake level of 594 feet above sea level.
- (f) Flotation devices for Structures, Walkways and Bridges shall be designed to support the Dead Load and Live Load as a fixed Structure, except that private residential structures may be designed to support the Dead Load plus 30-pounds per square foot Live Load when permitted by Chapter 36 of the Building Code.

#### **SECTION 18-24. Flotation Material.**

- (a) Flotation material shall be extruded polystyrene, expanded polystyrene, or a copolymer of polyethylene and polystyrene and shall have a minimum density of 0.9 pounds per cubic foot, and be of consistent quality throughout the float. Beads shall be firmly fused together, and there shall be no voids inside the encasement. Flotation material shall have a water rate absorption of less than 3.0 pounds per cubic foot over seven (7) days when tested by the Hunt Absorption Test. Other flotation material may be considered if it meets all of the requirements set forth in this section.
- (b) Flotation material shall be encased in solid polyethylene or a polyurethane type coating, both of which shall be watertight and have a nominal thickness of 0.125 inches.
- (c) Drums made of plastic, whether new or recycled, or metal shall not be used for encasements or floats.
- (d) All flats shall be warranted for a minimum of eight (8) years against sinking, becoming waterlogged, cracking, peeling, fragmenting, or losing beads, and shall not be prone to damage by animals.
- (e) Floats that are punctured, exposing the foam to erosion or deterioration, shall be replaced immediately.

#### **SECTION 18-25. Inspections and Removal for Violations.**

- (a) Docks, Piers and Boathouses under construction must pass an inspection by the Planning and Development Department in accordance with Chapter 1 of the Building Code. Such Structures may also be subject to inspection by the LWMO or the City's authorized agents, without prior notice, at reasonable times.
- (b) All owners must comply with this Article II and all permit requirements.
- (c) Failure to request and/ or pass inspection, or failure to correct any violations within 30 calendar days of receipt of written notice, may result in the removal of the Structure at

the owner's expense.

- (d) The LWMO may remove any Structure that remains a hazard to navigation in Lake Worth as determined by LWMO, at the owner's expense after written notice of the LWMO to remove the Structure.
- (e) When a Structure is removed for any reason, either at the initiative of the owner or at the direction of the LWMO, the owner shall be responsible for the complete removal of the entire Structure and any other related components or materials installed in conjunction with the construction, maintenance, or use of the Structure.
- (f) Appeal of a decision of the LWMO to remove a Structure shall be to the Director of the Water Department pursuant to Section 18-26.

#### **SECTION 18-26. Waivers.**

- (a) Except for those requirements in Sections 18-22 and 18-23, a person shall submit a written request for a waiver to the LWMO stating specifically the requirement and the reasons for such waiver. The requestor must also show that the waiver shall pose no health or safety risk nor conflict with the Water and Use Easement.
- (b) Upon the recommendation of the LWMO, the Director of the Water Department may grant up to a five percent (5%) waiver for those requirements stated in Sections 18-20 and 18-21(b).

### **SECTION 2. CUMULATIVE PROVISIONS**

This ordinance shall be cumulative of all provisions of ordinances and of the Code of the City of Fort Worth, Texas (1986), as amended, except where the provisions of this ordinance are in direct conflict with the provisions of such ordinances and such Code, in which event conflicting provisions of such ordinances and such Code are hereby repealed.

### **SECTION 3. SEVERABILITY CLAUSE**

It is hereby declared to be the intention of the City Council that the phrase, clause, sentence, paragraph or section of this ordinance are severable and, if any phrase, clause, sentence, paragraph

or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

**SECTION 4.  
PENALTY CLAUSE**

Any person, firm or corporation who violates, disobeys, omits, neglects or refuses to comply with or who resists the enforcement of any of the provisions of this ordinance shall be fined not more than two thousand dollars (\$2,000.00) for each offense. Each day that a violation is permitted to exist shall constitute a separate offense.

**SECTION 5.  
RIGHTS AND REMEDIES**

All rights and remedies of the City of Fort Worth, Texas, are expressly saved as to any and all violations of the provisions of the ordinances amended herein, which have accrued at the time of the effective date of this ordinance and, as to such accrued violations and all pending litigation, both civil and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this ordinance but may be prosecuted until final disposition by the courts.

**SECTION 6.  
PUBLICATION**

The City Secretary of the City of Fort Worth, Texas, is hereby directed to publish the caption of this ordinance for two (2) days in the official newspaper of the City of Fort Worth, Texas,

as authorized by Section 2, Chapter XXV of the Charter of the City of Fort Worth, Texas and by Section 52.013, Texas Local Government Code.

**SECTION 7.  
EFFECTIVE DATE**

This Ordinance shall take effect on the date it is adopted.

APPROVED AS TO FORM AND LEGALITY:

By: \_\_\_\_\_  
Assistant City Attorney

ADOPTED: \_\_\_\_\_